## Purchasing Receipts

	7 Canada	2000	
	- 2		
	ON KGA 1		
Dart Hawkesbury	! Hawkesbury		Fax 613 632-5246

Print

Supplier	Name	\$1,431.00 Metaux Castle	\$624.96 Metaux Castle	Metaux	
Toto!	IOIAI	\$1,431.00	\$624.96	\$658.56 Metaux Castle	\$2 714 52
ast	one				3
Aging	Days	0	0	0,	+
Price/Unit Aging Past		\$ 238.50 / #	\$6.51/sf	8/13/2018 \$ 6.86 / sf	
LE.	Date	8/13/2018	8/13/2018	13/2018	
Status		Stock	Stock	Stock 88	
Container		S101797	S101798	8101799	
Received Accounting Container Status Quantity Job No				0	
Received Quantity		(o	96	96 -	198
Due Date		6 8/24/2018			
Order	0	φ.	96		198
Equipment ID		4			Total:
Project					
For Part No					
Description Part Project Equipment Order ID Qty	303 Bar	1.500": X 4.000": X A.000": A.	2024-T3.063 Sheet: MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A- 250/4 OR AMS-QQ-A- 250/4 OR AMS 4037 OR ASTM B209 receive sf	2024-T3.080 Sheet: MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A- 250/4 OR AMS-QQ-A- 250/4 OR AMS 4037 OR ASTM B209 receive sf	
Purchased Item	M303B1.500X4.000 303 Bar			M2024135.080	
Terms	1 Net 30				
tem No	11 1		<del>2</del> <del>4</del>		
-	MEC002-	3			
PO No	PO040612 MEC002-				

Plex 8/13/2018 2:07 PM dart. Tollis. Andrew

1/1



## CERTIFICATE OF CONFORMANCE PACKING SLIP/

A. M. Castle & Co.

Page 1 of 2

ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Shipment No:3671722 Shipped Qty(LBS) ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST 122.5019 ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY DART AEROSPACE LTD 1.5000.4.0000.FLAT.303.STAINLESS.CD.ANN 72"LONG HAWKESBURY, ON Invoice Qty 3671722-2 1270 ABERDEEN CUT TO 72 IN () SPECIFICATIONS: ASTM A582 6.0000 FT **BOL No** Width (IN) Length (IN) Email P/s and certs to: clavoie@dartaero.com Deliver To: K6A 1K7 RECEIVE AT TIME OF DELIVERY Final Destination Branch - TOR ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S DART AEROSPACE LTD HAWKESBURY, ON MANITOULIN 1270 ABERDEEN **46A 1K7 CAN** PCS Ordered Qty Description Carrier Ship To: 1.00 PCS Mech Id Email P/s and certs to: clavoie@dartaero.com END USE: COMMERCIAL AIRCRAFT PARTS HAWKESBURY, ON K6A 1K7 DART AEROSPACE LTD Freight Terms END USER: DART AEROSPACE BF1238010.MO 1270 ABERDEEN Prepaid Heat Number Item No Part Number Sold To: Line No ORIGIN F.O.B. Mill/Source MISSISSAUGA, ON L5N 2150 ARGENTIA ROAD A. M. CASTLE & CO. Purchase Order No Shipment Details Date Shipped Ship From: Delivery No. 10-AUG-18 122038102 Order No 5215329 Details 40612 CAN 662849

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description.

Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co., within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned

Date Printed: 10-AUG-2018 03:08:25 PM



PACKING SLIP/ CERTIFICATE OF CONFORMANCE

A. M. Castle & Co.

Page 2 of 2

Date: for credit.
Reviewed by Authorized Castle Metals Representative:

SUE KALOUS



Date Printed: 10-AUG-2018 03:08:25 PM



## CERTIFICATE OF CONFORMANCE PACKING SLIP/

A. M. Castle & Co.

Page 1 of 1

Shipment No:3671710 DART AEROSPACE LTD HAWKESBURY, ON 3671710-2 1270 ABERDEEN BOL No Deliver To: **K6A 1K7** DART AEROSPACE LTD HAWKESBURY, ON 1270 ABERDEEN MANITOULIN K6A 1K7 CAN Carrier Ship To: HAWKESBURY, ON K6A 1K7 DART AEROSPACE LTD Freight Terms 1270 ABERDEEN Prepaid Sold To: ORIGIN F.O.B. MISSISSAUGA, ON L5N 2150 ARGENTIA ROAD A. M. CASTLE & CO. Date Shipped Ship From: 10-AUG-18 CAN 2K7

Shipment Details

	01100		4(():::::::::::::::::::::::::::::::::::	֡֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜	
			Liliai Desi	rillal Destination Branch - IOR	
Order No	Line No	Item No	Description		
5214517	m	770896.MO	- PROTECTIVE	0.0630.SH.2024.T3.ALUMINUM.BARE.48.0000.144.0000 - PROTECTIVE VINYL COATING SPECIFICATIONS:	.48.0000.144.0000 ECIFICATIONS:
Purchase Order No		Part Number	Ordered Oty	-250/4 W	
40612			200000	t)	Invoice Qty
Details	ALL PAF ALL MAT Email P/	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com	ORDER / CUST IFYING MARKIN aero.com	IST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT HAVE IDENTIFYING MARKINGS EX:HEAT #'S clavoie@dartaero.com	Z.00 PCS TIME OF DELIVERY
	END US	END USER: DART AERUSPACE END USE: COMMERCIAL AIRCRAFT PARTS	T PARTS		
	Mill/Source	Heat Number	-	PCS Width (IN) Length (IN)	nath (IN) Shipped Oty/I Re)
122002040	ARCONIC INC	497313 A	2		1

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable featurement of the material are waived unless made the interest of the description.

For credit.

Reviewed by Authorized Castle Metals Representative: Date:

Name:



## PACKING SLIP/ CERTIFICATE OF CONFORMANCE

A. M. Castle & Co.

Page 1 of 1

Shipment No:3671710

	Sold To:	Ship To:	Deliver To:
A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
ed		Carrier	BOI No
10-AUG-18 ORIGIN	N Prepaid	MANITOULIN	3671710-2

Shipment Details

Shipment Details	ails			Final De	Final Destination Branch TOD	90	
						5	
Order No	Line No	0	Item No	Description	tion		
5214517	4		770940.MO	0.0800.5 - PROT AMS-OC	0.0800.SH.2024.T3.ALUMINUM.BARE.48.0000.144.0000 - PROTECTIVE VINYL COATING SPECIFICATIONS: AMS-00-A-250/4	M.BARE.48.0000.1 TING SPECIFICATI	144.0000 IONS:
Purchase Order No	er No	Part N	Part Number	Ordered Otv	Otv	Coional	
40612				2.00 PCS		2 DO DOG	
Details	ALL PAL ALL MA Email F END U	APERW ATERIA P/s and SER: D	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE	RDER / CUS YING MARK sro.com	STOMER MUST RECI	EIVE AT TIME OF I	DELIVERY
Delivery No.	Mill/Source	Z	Source Heat Number Mach I	7	DCC Width	(IN) I amount (IN)	
122002040	KAISER ALUMINUM		12/4 14 6 1 B 3 M			wintii (iiv) Length (iiv)	Snipped Qty(LBS) 111.7318

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description.

Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

AUG 10 2018

Date:

Date:

Date:

Opposition

Date Printed: 10-AUG-2018 03:01:45 PM



## **PURCHASE ORDER** PO040612

Tel (613) 632-5200

Supplier:

MEC002-VU

Metaux Castle P.O. Box 4090 Stn A

Toronto

ON

M5W OE9 Canada

PO No:

PO040612

PO Date:

7/26/18

Due Date:

8/22/18

**Purchase Order** Revision:

**Revision Date:** 

Ship-To Contact:

Lavoie, ChantalPhone:

Keulseg clavoie@dartaero.com

Ship To:

1270 Aberdeen Street

Hawkesbury

ON

K6A 1K7 Canada Phone: 613-632-5200 Via:

Ground

Pymt Terms: Freight Terms: Net 30

**Special Comments:** 

Line Item	Job	Part .	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1		M7075T6S6.000X0.250		7075-T6S Sheet 6" Thick Plate X 0.25" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	•	8/22/18	80 ft	O ft	80 ft	\$14.35/R	\$1,148.0
2		M7075T6S6.000X1.000		7075-T6S Sheet 6" Thick Plate X 1" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	-	8/22/18	60 ft	O ft	60 ft	\$43.42/ft	\$2,605.20
3		M7075T6S1.500X1.500		7075-T6S Sheet 1.5" Thick Plate X 1.5" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	-	8/22/18	80 ft	0 ft	80 ft	\$20.50/ft	\$1,640.00
4		M7075T6S1.750X2.250		7075-T6 Sheet 1.750" X 2.250" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed		8/22/18	43.75 ft	Oft	44 ft	\$40.86/ft	\$1,787.63
Item Not	e 20 pc	- 48.25" long										THE PARTY OF THE P
5		M7075T6S1.250X2.750		M7075T6S1.250" X2.750" Cut From Plate : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM	Firmed	-	8/22/18	12 ft	· Oft	12 ft	\$31.20/ft	\$374.40



## PURCHASE ORDER PO040612

Tel (613) 632-5200

Line Item	Job	Dest	Supplier				Due	Order	Received		Unit	Extende
item	300	Part	Part No	Description B209	Status	Account	Date	Quantity	Quantity	Balance	Price (USD)	Price
				receive ft								
6		M7075T6S0.375X3.000		7075 T6 Sheet 0.375" X 3.000" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209	Firmed	-	8/22/18	60 ft	O ft	60 ft	\$11.86/ft	\$711.
7		M7075T6S0.750X4.000		7075 T6 Sheet 0.750" X 4.000" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209	Firmed	•	8/22/18	40 ft	0 ft	40 ft	\$28.58/ft	\$1,143.2
8		M7075T6S1.000X1.250		7075 T6 Sheet 1.000X1.250 : MATERIAL: 7075-T6 OR T651/T6510/T6511/T62 ALUMINUM BAR AS PER AMS-QQ-A-225/9 OR AMS 4122/4123/4186/4187 OR PER AMS-QQ-A-200/11 receive ft	Firmed	-	8/22/18	12 ft	O ft	12 ft	\$17.15/ft	\$205.8
9		M7075T73B1.250X02.000		7075-T73 Bar 1.250" X 2.000" Cut In Billet 30" Long : MATERIAL: 7075-T73 OR 7075- T7351/T73510/T73511 BAR PER AMS-QQ-A- 200/11 OR AMS-QQ-A- 225/9 OR AMS 4124 OR AMS-QQ-A-250/12 OR AMS 4078 receive ft	Firmed		8/22/18	25 ft	0 π	25 ft	\$26.10/ft	\$652.5
Item Note	10 pc	s cut at 30" long										
10		W7075T73R1.000		7075-T73 Round Bar 1.00 MATERIAL: 7075-T73 OR 7075- 17351/T73510/T73511 ROUND BAR AS PER AMS-QQ-A-200/11 OR AMS-QQ-A-225/9 receive ft	Firmed		8/13/18	12 ft	0 A	12 ft	\$11.47/ft G 0, 8 <b>201</b>	
DAS 61 9-89		M303B1.500X4.000		303 Bar 1.500" X 4.000" MATERIAL: AISI 303 SS BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE	Firmed	-	8/22/18	6 ft	Oft 6G+	AUG 1	\$238.50/ft 3 2018	\$1,431.0
12	ı	M303B1.000X1.000	:	M303B1.000 X 1.000 MATERIAL: AISI 303 SS BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT	Firmed	-	8/13/18	12,10	(2 ft	12 ft	\$18.72/R AUG 0 8	\$224.64 <b>?018</b>



## PURCHASE ORDER PO040612

Tel (613) 632-5200

Line			Supplier				Due	Order	Received		Unit	Extende
Item	Job	Part	Part No	Description	Status	Account		Quantity		Balance	Price (USD)	Price
				ACCEPTABLE receive ft								
13		M2024T3S.090		2024-T3 .090 Sheet : MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209 receive sf	Firmed	-	8/22/18	144 sf	0 sf	144 sf	\$8.16/sf	\$1,175.
61 9-89		M4130NR0.375		4130 Steel Round Bar .375" : MATERIAL: AISI 4130N ROUND BAR AS PER MIL-S-6758 OR AMS 6348/6370/6528 receive ft	Firmed	-	8/13/18	60 ft	0 tt કિંગ-પાના		\$2.37/ft AUG 0 9	
DAS 61 9-89		M2024T3S.063		2024-T3 .063 Sheet : MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209 receive sf	Firmed	-	8/22/18	96 sf	0 sf 965+	96 sf	\$6.51/sf AUG 1 3 2	\$624.9 <b>018</b>
16 DAS 61	and the state of t	M2024T3S.080		2024-T3 .080 Sheet : MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209 receive sf	Firmed	-	8/22/18	96 sf	0 sf	96 sf	\$6.86/sf	\$658.5
17 ÅC		M304R1.250		304 Round Bar 1.250 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	-	8/3/18	12 ft	0 ft 12 ft	12 ft	\$10.42/ft   8/08/0	\$125.0 )
DAS 61 9-89		M304R1.500		304 Round Bar 1.500 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive fi	Firmed	-	8/3/18	12 ft	0A 12.544	12 ft	\$13.81/R AUG 0 9 20	\$165.7
19		M6061T6B2.000X08.000		6061-T6 Bar 2.00' X 8.00" ( Cut In 4Ft Section) : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed		8/14/18	8 ft	0 ft	8 ft	\$56.83/ft	\$454.6
Item Note	cut in	section of 4 ft							,			
20AS 61	Control designation	M303R1.250		303 Round Bar 1.250 : MATERIAL: AISI 303 SS	Firmed	-	8/3/18	12 ft	11.115gt	12 ft	\$11.80/ft AUG 0 9 2	\$141.6



## **PURCHASE ORDER** PO040612

Tel (613) 632-5200

Line	1		Supplier		ros		During.		Similar C		1.54	WEST 1983
Item	Job	Part	Part No	Description	Status	Account	Due	Order	Received	Ralanas	Unit Price (USD)	Extende
				ROUND BAR AS PER					dunitity	Dalance	Price (USD)	Price
				ASTM A582								
				NOTE:304/316 NOT								
				ACCEPTABLE receive ft								

Grand Total: \$15,549.37

Owner Rose

**Procurement Quality Clauses** 

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit

Plex 8/3/18 11:09 AM dart.baker.diane





## **Dunkirk Specialty Steel, LLC.** 830 Brighern Road | Dunkirk, NY 14048 (716) 366-1000



Materials Testing Laboratory

Heat Treating

### **Material Certification**

MILL ORDER: PART NUMBER: S#29410 P.O. NUMBER: 49198-7

SERIAL NUMBER: DNK-0080835-G23869-02028

PAGE NUMBER: 1 of 1

P.O. DATE: 9/16/2017 PRINTED: 2/19/18 10:24

FRY STEEL COMPANY 0 T

P.O. BOX 4048

FRY STEEL CO C/O C.M.I. PREIGHT TRANS H T

I 0 3751 CEDAR CREEK DRIVE

SANTA FE SPRINGS, CA 90670

JOLIET, IL 60436

Material Description: STAINLESS STEEL FLAT BAR 303 EAF+AOD HOT ROLLED ANNEALED PICKLED ASTM A484-16 ASTM A320-17a (BBF/303 Class 1), MIL-S-7720 Am. 1 (3038 condition A), Federal QQ-S-764B Am. 2 (303 condition A) (ASTM A582)12e1 (303 condition A), Federal QQ-S-763C Am. 2 (303 condition A), AMS 5640V Type 1 (ex. finish),

&R/A

70.44

Size: 1.5000 X 4.0000 X 132.0000 MIN/

156.0000 MAX RANDOM LENGTH

Heat Number			C	0.060	MIN	1.80	SI	0.34	S	0.21	P	0.022
G23869	FNL	We	CR	17.80	W	<0.05	v	0.06	NI	8.18	MO	0.23
			CO	0.07	CU	0.29	SN	0.005	PB		CB	0.03
			TA		AL	<0.01	TI	<0.01	FE		B	
			0		MG		CA		SE		ZR	
			AG		BI		14	0.038	H		CQ	

TENSILE:

L 0

> DIR. T/S KSI LONG. 93.8

0.2% Y/8 KSI SRT. 36.2 67.94

HARDNESS:

150 HBW

MACRO ETCH:

as-received - TEST WAS PERFORMED BY UNIVERSAL STAINLESS, BRIDGEVILLE, PA

8 - 1 R - 1 C - 1

MICHOSTRUCTURE .

ACCEPTABLE - NO DITCHING FOUND

THIS MATERIAL WAS SOLUTION ANNEALED AT A TEMPERATURE OF 1900°F (+/-25) FOR 1 HOUR FOLLOWED BY WATER QUENCH



FRY STEEL CO. CERTIFIES THAT THIS IS A TRUE COPY OF THE ORIGINAL MILL TEST REPORT NOW ON FILE RECEIVED AND INSPECTED

FEB 2 0 2018

/S/Kevin Seidel

Date: 02/19/18

Kevin Seidel, Technical Mgr.

Prepared by: Amy Giordano

Melted and manufactured in compliance with DFARS 252.225-7009 ALT 1. Melted and chemistry tested by USAP in Bridgeville, PA., USA. Material Manufactured in LISA, Certification IAW DIN 50 049/EN 10204 3.1. Material complies with EU directive 2002/95/EC (RoHS). The test results shown are certified to be a correct statement of records that were derived from testing samples of the material. Results meet applicable specifications. No welding was performed on the material supplied on this order. Material is free from mercury contamination. Material has not been cleaned prior to heat treatment. Material is of NAFTA origin. This material was produced under the Dunkirk Specialty Steel Quality Management System documented in QM, Rev 13 Dated 12/19/2017, conforming to NCA-3800. Material testing was performed as applicable (latest revision) in accordance with ASTM A370, A604, E8, E10, E18, E23, E45, E112, E139, E381, E572, E1019, E1444, . & AMS 2315. The recording of false, fictitious, or fraudulent statements on this document may be punished as a felony under federal statutes, including Federal Law, Title 18, Chapter 47. Test results are maintained in company records. This certification shall not be produced, except in full, without written approval of Dunkirk Specialty Steel. Material is free from Radioactive Contamination. Safety Data Sheets (SDS) are available at www.univstainless.com, if applicable: Decarb test - furnace atmosphere is Argon; Corrosion Test (ASTM A262 Practice A) - Etchant used -10% Oxalic Acid; Microstructure @ magnification 250 - 500X. Unless otherwise stated, Percentage Elongation is measured in 4D. Speed of Testing: 0.005 in/in/min.; 0.05 in/in/min. Universal Stainless has complied with all producer requirements of AS6279 as applicable,

RELEASED ZO10 -02 - 0.2

REV. 8 SHEET 1 OF 1 MIS 02.05 29 DATE CP 10 01 05 COPYRIGHT IF 200 BY DART ARROSPACE LTD DART AEROSPACE LTD
HAWKESBLRY, ONTARIO, CANADA
DRAWING NO
R
M303B DS BY | B | REFORMATIONG, ADD SPECS (ZN De.1), | REF PAR 08-020A | A | NEW ISSUE | REV | DESCRIPTION | 303 BAR 10.01.05 CHECKED
MFG. APPR.
APPROVED
DE APPR.
DE APPR. DESIGN

PURCHASE MATERIAL: AISI 303 SS BAR (NOTE: AISI 304/316 NOT ACCEPTABLE) ASTM A582

SPECIFICATION CONTROL DRAWING

S

00

\*

g: 22

SPECIFICATION; PART NUMBER:

9

۵

M303BIT.TTT X WW.WWW THICK WIDTH

WHERE "T.TT" = THICKNESS IN INCHES AND "WW.WWW" = WIDTH IN INCHES

EG. 0.5" x 3.0" BAR = M303B0.500X03.000

U

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: <u>M 303</u> DATE: <u>12/08</u>				1	PO / BATCH	100.: 1000	10612/5/01
MATERIAL CERT REC'D: 65					CKNESS ORDE		
QUANTITY RECEIVED:					CKNESS RECE		
QUANTITY INSPECTED: 64+				SHE	EET SIZE ORDE	RED:	-
QUANTITY REJECTED:				SHE	ET SIZE RECEI	VED:	
DESCRIPTION	(Ch	CR eck (N)			COMMEN	TS	
SURFACE DAMAGE	Y	(N)					
CORRECT FINISH	(8)	N					
CORROSION	Y	N					
CORRECT GRAIN DIRECTION	(Y)	N					
CORRECT MATERIAL PER M-DRAWING	(Y)	Ν	45/1	1 A 582			
CORRECT THICKNESS	V	N					
PHOTO REQUIRED	Y	(N)					
CORRECT REF # TO LINK CERT	(Y)	Z	11.	62386	9		
CORRECT MATERIAL IDENTFICATION		N					
CORRECT M# ON THE MATERIAL	(A)	N					
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Υ	R					
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ	(N)					
CUT SAMPLE PIECI				ND PREFOR ULTS BELO	W		
			HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL							
SIZE OF TEST SAMPLE							
HARDNESS / DUROMETER READI							
	te	sters	located in	the Quality of	<u>iice</u>		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

QC 18 INSPECTION

INSPECTED BY:

DATE:

ENGINEERING SIGNOFF (if required)

SIGNED OFF BY:

DATE:

## CERTIFIED INSPECTION REPORT

## Arconic

# DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

RIVERDALE, IA

Ship From:

DP-75554-01-1 Item 1000975554-1 Arconic No. Invoice No. 00000 11774733 2018-06-15 3527868 Ship Date v<sub>vc. 3</sub> raby cardy that the material covered by this certificate has been inspected with, and has been found to meet the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mochanical properties shown on the face of this sheet.

Customer

452888 Ln#: 1

A M CASTLE & COMPA G041174021R01

Arconic Item

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S NAV. AL

Manufacturing Director - Davenport & Satellites Nandu Snnivasan

to the

Terrence Thom Quality Assurance Manager

Page 1 of

N

Ship To: A M CASTLE & COMPANY DIP. 14001 ORANGE AVE PARAMOUNT 90723 CA

0.063 IN TK (+.0030 -.0030) X 48.0 IN W (+.046875 -.046875) CAT X 772196 (N) A/T (024) T3 COLLED SHEET MILL FINISH 772196. A920Z4-155 REV 2 AMS-QQ-A-((NOT MARKED)) LIGHTLY OILED COIL SIZES: ID 20 CUST REQ 18-04-1.4 250/4) REV B AMS4037 REV Q ASTMB209 REV QUAN TOL IN COLL WGTS: MAX 5625 LB
MAX GROSS SKID WGT: 6000 LB
+/-40 % CQR 0259630 REV 01 04 \*\*\* W/E 18-04-14 \*\*\* Item Description

Inspector Clock Numbers 27747 47428 MOD PC Quantity Weight 8334 2731 5603 497313 Lot Package Ticket

Notes for CQR: 0259630.1

484501

Num

PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF AMS-QQ- A-250/4 ALSO MEETS THE REQUIREMENTS OF QQ-A-250/4E, AMENDM ENT 2. PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/4E AMENDMENT 2 ALSO MEETS THE REQUIREMENTS OF AMS -QQ-A-250/4.

-Specification Limits 0259630.1

EL4D PCT 15 42.0 TYS 63.0 UIS KSI Max Min Long Transv. Dir Tmpr T3

Total Aluminum 0.15 0.9 1.8 0.10 0.25 0.15 0.05 0.30 1.2 Each  $_{
m TI}$ ZN S S ğ 0.50 0.50 4.9 0.9 CU MN 3.8 되 SI Max Min Chemical Composition Alloy 2024

Other Other



## PERTIFIED INSPECTION REPORT

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722 Arconic DP-75554-01-1

Item

Invoice No.

11774733

B.L. No.

COMPA G041174021R01 Arconic Item 1000975554-1

ß

A M CASTLE Customer 00000

452888 Ln#: 1

RIVERDALE, IA.

Ship From: Arconic No.

> P.O. No./Govt Contract No 2018-06-15 3527868 Ship Date This test report shall not be reproduced except in full, without the written approval of the Quality Department. No atteration, addition or other change is authorized to be made to this cartificate. The recording of false, ificilitous, or otherwise fraudulent additions or entries on this certificate by any recipient may be punished as a felony under applicable law. Per. We nareby certify that the matenal covered by this certificate has been inspected with, and has been found to meet the applicable requirements described therein, including any specifications forming a part of the describtion and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

Nandu Srinivasan Manufacturing Director - Davenport & Satellites S Now ALL

Constitute of

Terrence Thom Quality Assurance Manager

a of  $\sim$ Page

t 1 t 1 t 1					
1 1 1 1 1 1 1 1 1 1 1 1					Total
					Each Other Total
					other < 0.05
sults -					TI 0.02
r Res					ZN 0.04
-Specification Limits (cont.)	EL4D	PCT	20.7	18.8	SI FE CU MN MG CR ZN TI Other 0.06 0.17 4.5 0.64 1.5 0.00 0.04 0.02 < 0.05
enö ,					MG 1.5
graphy	TYS	KSI	44.9	44.7	MN 0.64
.)					CU 4.5
(cont	OTS	KSI	65.8	65.7	FE 0.17
imits					SI 0.06
ition L	No->	Test	2		
fica					[8
			Transv.		Chemical - OES Actuals
CQR: 0259630.1 Lot: 497313		Dir	Long T	}	umber 13
COR: 0		Tmpr	ТЗ		Cast Number H8394013

This material was melted in the United States or a Qualifying Country [REF DFARS 225.872.1(a)]; it was manufactured in the United States

H8394013

SHEET 1 OF 1 CP 09.07.07 DS 01.09.24 BY DATE REV. B DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA - 2024-T3 SHEET SPEC 8 REFORMAT DWG, ADD ASTM B209 SPEC (ZN D8-1), PAR 09-020A M2024T3S 09.07.07 DESIGN
DRAWN
CHECKED
MFG. APPR.
APPROVED
DE APPR
DATE
DATE

QQ-A-250/4 OR AMS. QQ-A-250/4 OR AMS 4037 OR ASTM B209 M2024T3S XXX PART NUMBER:

WHERE ".XXX" = SHEET THICKNESS (IN INCHES)

EG. 0.063" THICK SHEET = M2024T3S.063 XXX BY 4FT BY 10FT PREFERRED SIZE:

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL 2024-T3 ALUMINUM SHEET

U

SPECIFICATION:

(B)

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M 20.  DATE: 18/08	735	PO/BATCH NO .: POO 40612/5/01							
MATERIAL CERT REC'D: Yes QUANTITY RECEIVED: 96sf QUANTITY INSPECTED: 96sf		THICKNESS ORDERED: 0.080 "  THICKNESS RECEIVED: 0.080"  SHEET SIZE ORDERED: 4/x/2"  SHEET SIZE RECEIVED: 4/x/2"							
DESCRIPTION	(Cr	CR neck (N)				COMMEN	TS		
SURFACE DAMAGE	Y	(DP						-	
CORRECT FINISH	X	N							
CORROSION	Y	ON							
CORRECT GRAIN DIRECTION	0	N							
CORRECT MATERIAL PER M-DRAWING	(0)	N	Ams.	QQ-A	-250	1/4			
CORRECT THICKNESS	W	N				f			
PHOTO REQUIRED	Υ	N							
CORRECT REF # TO LINK CERT	0	N	HT: 49	7313	**********				
ORRECT MATERIAL IDENTFICATION	8	N							
CORRECT M# ON THE MATERIAL	Y	N							
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Υ	(N)			1				
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ								
CUT SAMPLE PIECI			TERIAL AN				SS CHE	CK.	
			HRC	HRE	3	DUR A	DUR	D	WEBSTER
YPE OF MATERIAL						•			
SIZE OF TEST SAMPLE									

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY:	SIGNED OFF BY:
DATE: 18/08/13	DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

HARDNESS / DUROMETER READING

SHIP TO:

A M CASTLE & CO 14001 ORANGE AVE P.O. BOX 1402 PARAMOUNT, CA 90723

SOLD TO:

AM CASTLE & CO- SOLD TO 1420 KENSINGTON RD SUITE 220 OAK BROOK, IL 60523

KAISER ALUMINUM

Trentwood Works

PO Box 15108, Spokane Valley WA 99215-5108 15000 E Euclid, Spokane Valley WA 99216 Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number 4505702

CUSTOMER PART NUMBER: 770940 CUSTOMER PO NUMBER: WORK PACKAGE: SHIP RUN/LOAD: GOV'T CONTRACT NUMBER: 453537-1 104245/29 KAISER ORDER NO: SHIP DATE: CLAD: TEMPER: PRODUCT DESCRIPTION: ALLOY: 1251254-1 2024 12-APR-2018 BARE T3 Kaiser Stretched WEIGHT SHIPPED: DIAMETER/WIDTH: QUANTITY: TRUCK B/L#: GAUGE: LENGTH: 0.0800 IN 144.000 IN 48.000 IN 3728 LB 67 PCS EST. 2073063 ( 2.0320 MM) (1219.2 MM) (3657.6 MM)

MHU 2192612: LOT 254063B1: 13 pieces: MHU 2200148; LOT 241461B3; 54 pieces;

**Certified Specifications** 

AMS 4037/RevQ CMMP 019/RevD AMS-QQ-A-250/4/RevB CMMP 025/RevV

ASTM B 209/Rev14

Test Code: 1504 Lot: (241461B3)

Cast 615 Drop 07

**Test Results** 

Ingot 3

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:

Temper

Dir / # Tests

Ultimate KSI (MPA)

Yield KSI (MPA)

Elongation %

T3

LT / 2 (Min:Max)

65.6:66.0

45.1:45.8

16.9:17.8

(452:455)

(311:316)

(ASTM E1251)

Chemistry: Actual(wt%)

SI FE 0.07 0.20

CU 4.6 0.53 MG

CR ZN

TI

ZR

OTHER

Lot: 254063B1

Cast 597

Drop 57

1.4

0.11

0.01

Ingot 3

0.02 0.01 0.00

TOT 0.02 Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:

Temper **T3** 

Dir / # Tests

Ultimate KSI (MPA)

Yield KSI (MPA)

Elongation %

LT / 2 (Min:Max)

66.0:66.6 (455:459) 45.5:45.6 (314:314) 18.1:18.4

(ASTM E1251)

Chemistry: Actual(wt%)

SI 0.07

FE 0.18

CU 4.5

MN 0.53 MG 1.3

CR ZN 0.01 0.13

TI 0.02

ZR 0.01 0.00

TOT

OTHER 0.03



## CERTIFIED TEST REPORT

Serial Number 4505702

Trentwood Works PO Box 15108, Spokane Valley WA 99215-5108 15000 E Euclid, Spokane Valley WA 99216 Phone: (800) 367-2586

### **ALLOY LIMITS**

	SI	FF	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
2024	O,	1 2	00	10114	1110	011			·		0111211	****
MIN(wt%)	0.00	0.00	3.8	0.30	1.2	0.00	0.00	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.50	0.50	4.9	0.9	1.8	0.10	0.25	0.15	0.05	0.05	TOT	0.15
Aluminum Remainder												

ORDER COMMENTS AMC A92024-155 R 6

### CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:

\* has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.

All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.

\* was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for determining expensive. domestic content.

domestic content.

\* has been thermally processed in compliance with AMS 2772, where applicable.

\* is mercury free, within the limits of detection of ASTM E1215 (<1ppm).

\* is in compliance with RoHS 2, European Union Directive 2011/85/EU.

\* is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.

\* is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.

is free of weld repair.

\* is free of weld repair.

\* meets the reporting requirements of EN10204, Type 3.1.

Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

Page 2 of 2

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SPECIFICATION: QQ-A-250/4 OF AMS-QQ-A-250/4
OR AMS 4037
OR ASTM B209
PART NUMBER: M202473S XXX

⟨B

PURCHASE MATERIAL (2024-T3 ALUMINUM SHEET

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SPECIFICATION CONTROL DRAWING

M202413S XXX THK WHERE ".XXX" = SHEET THICKNESS (IN INCHES)

EG. 0.063" THICK SHEET = M202473S.063 E: XXX BY 4FT BY 10FT

U

PREFERRED SIZE: XXX BY

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: <u>M 2014</u> DATE: /8/08/													
MATERIAL CERT REC'D: Ses QUANTITY RECEIVED: 965F QUANTITY INSPECTED: 965F QUANTITY REJECTED:		THICKNESS ORDERED: 0.080"  THICKNESS RECEIVED: 0.080"  SHEET SIZE ORDERED: 4/2/2  SHEET SIZE RECEIVED: 4/2/2											
DESCRIPTION					COMMENTS								
SURFACE DAMAGE	X	N)								_			
CORRECT FINISH	V	N								_			
CORROSION	X	(N								_			
CORRECT GRAIN DIRECTION	(8)	N	1 2 0	· 4						_			
CORRECT MATERIAL PER M-DRAWING	D	N	AMS.	-QQ-A	250	14				_			
CORRECT THICKNESS	0	N								_			
PHOTO REQUIRED	Y	(M)	11/2	01011						_			
CORRECT REF # TO LINK CERT	(0)	N	17:2	114611	33					_			
CORRECT MATERIAL IDENTFICATION	100	N								_			
CORRECT M# ON THE MATERIAL	8	N			•								
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Υ	N											
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ	N											
CUT SAMPLE PIEC			TERIAL AI			HARDNE	SS C	HECK.					
			HRC	HRB		DUR A	DI	JR D	WEBSTER	?			
TYPE OF MATERIAL													
SIZE OF TEST SAMPLE													
HARDNESS / DUROMETER READI													
	te	esters	located in t	the Quality	Office								

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

INSPECTED BY: Af SIGNED OFF BY: DATE:

ENGINEERING SIGNOFF (if required)

QC 18 INSPECTION